

Work Order ID 77488

December-08-11 1:40:28 PM

77488

Page 1

Item ID: D2535 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Spring
 Start Date: 08/12/2011 Start Qty: 50.00 ***50*** Cust Item ID:
 Required Date: 22/12/2011 Req'd Qty: 50.00 ***50*** Customer:
 Reference:

Approvals: Process Plan: M.C.J Date: 11/12/08 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2535	Rev A

100 PURCHASING 0.00
100
 Purchasing Memo 0.00
 Purchasing Issue P/O: 15645 Possible Supplier: Victoria Spring, 0.070 SS Torsion Spring
CD 11/12/12 (50)

110 Receive & Inspect for Damage & Mat'l Certs 0.00
110
 Packaging Memo 0.00
 Packaging Ensure Material Release Note is attached
Puff/2/21 50

120 QC6- Inspect dimensions to drawing 0.00
120
 QC 0.00
 Quality Control Check dims to dwg
counted
(50)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 77488

77488

Page 2

December-08-11 1:40:28 PM

Item ID: D2535 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Spring
 Start Date: 08/12/2011 Start Qty: 50.00 ***50*** Cust Item ID:
 Required Date: 22/12/2011 Req'd Qty: 50.00 ***50*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>ST 504</u>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

SP 11-12-23

11/12/28

11-12-23
50

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December-08-11 1:40:32 PM

Page 1

Work Order ID: 77488

77488

Parent Item: D2535

D2535

Parent Item Name: Spring

Start Date: 08/12/2011

Required Date: 22/12/2011

Start Qty: 50.00

Required Qty: 50.00

Comments: IPP A99.04.19New Issue (From hand written IPP)DM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2535P *D2535P* Spring		Purchased	No			100	Each	0.0000	1 **	50			

Rec'd 12/21 (50)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

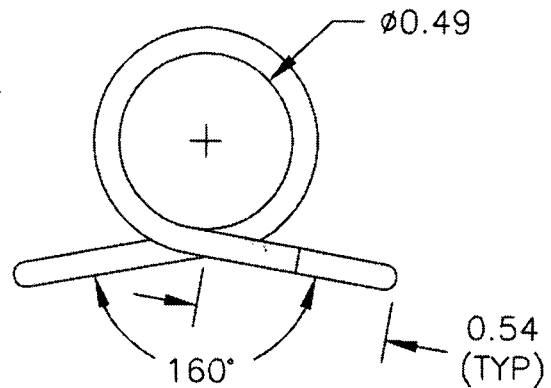
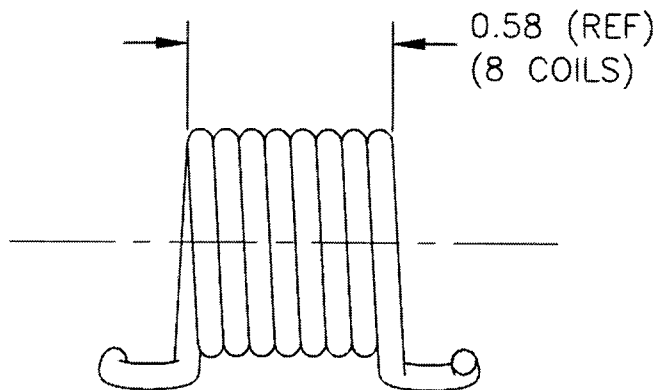
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN BW	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED KE	APPROVED JH	DRAWING NO. D2535	REV. A SHEET 1 OF 1
DATE 99.04.08		TITLE SPRING SPEC CONTROL	SCALE 2:1
A	99.04.08	NEW ISSUE	

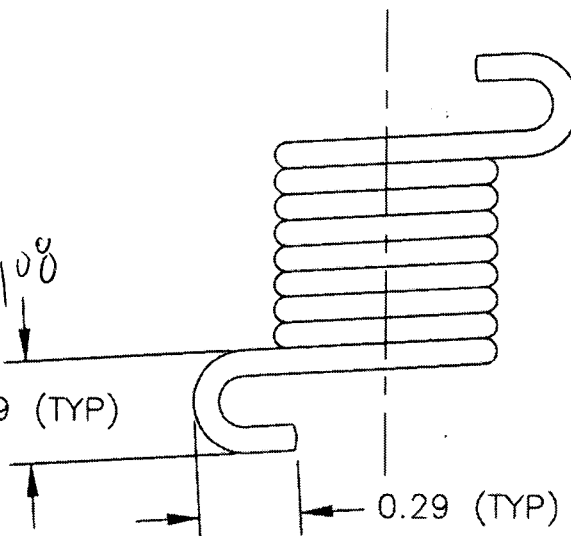
RELEASED
99.05.11 KE



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 77488 M.L.S.

11/12/08

0.29 (TYP)



SPECIFICATION CONTROL DRAWING

TENSION SPRING WITH 8 COILS (NO GAP BETWEEN COILS)

MATERIAL: AISI STAINLESS STEEL $\phi 0.070$

POSSIBLE SUPPLIERS: VICTORIA SPRINGS, P/N .070SS TENSION SPRING

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO15645**

Purchase Order Date 12/12/11

PO Print Date 12/12/11

Page Number 1 of 1

Order From :

VC-VIC002

VICTORY SPRING LTD.
#2 6104 - 82 AVE.
EDMONTON, AB T6B 0E7
CA

Contact Name

Vendor Phone

866 230 5312

Vendor Fax

866 230 5338

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

CL 12/12/11

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2535P	Spring	12/23/11 Yes	50.00 Each	FedEx PI collect	\$4.5600	\$228.00

Special Inst: AS PER DWG D2535 REV. A
B77488

PO Total: \$228.00

DATE OF PURCHASE

12/12/11

Change Nbr:

1

Change Date: 12/12/11

W *CL*
No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



convenient. consistent. correct.

PACKING SLIP

23812

#2, 6104 - 82 Ave
Edmonton, AB T6B 0E7
t + 780 442 4020
f + 780 466 8000

BILL TO:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

SHIP TO:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

DATE		ORDER No.		SHIP VIA	
Dec 19, 2011		PO15645		FedEx	
QUANTITY	DESCRIPTION			UNIT	AMOUNT
50	VIC 1533 D2535P Spring - Torsion Sulizbi				
GST #	TERMS	SUBTOTAL	FREIGHT	GST	TOTAL
854454527	NET 30 DAYS				

CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace	DATE: 12/19/11
PART/DRAWING #: D2535P	PO # <u>PO15645</u>
SPRING DESCRIPTION: Torsion	QUANTITY: <u>50</u>

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS302	yes	
Material diameter	0.07	0.072	per previous orders
Coil I.D.	0.490	0.5	
Coil O.D.			
Number of Coils	8 ref	8	
Free Length			
Helix	RHW	yes	
End type	per dwg	yes	
Debur End			

COMMENTS

Mill Certificate attached: yes
Material Heat Number: 35791

8/11/22

Inspected by: *Heidi Burrows*

MATERIAL CERTIFICATION

REPORT FOR: Dart Aerospace	DATE: 12/19/11																																	
PART/DRAWING #: D2535P	PO # PO15645																																	
SPRING DESCRIPTION: Torsion Spring	QUANTITY: 50																																	
MATERIAL GRADE: T302 Stainless Steel Wire Spring ASTM-313-03																																		
<p>PROPERTIES:</p> <table> <thead> <tr> <th><u>Chemical</u></th> <th></th> <th><u>Physical</u></th> </tr> </thead> <tbody> <tr> <td>Carbon: (C)</td> <td>0.053</td> <td>Size: 0.072</td> </tr> <tr> <td>Chromium: (Cr)</td> <td>18.210</td> <td></td> </tr> <tr> <td>Copper: (Cu)</td> <td>0.410</td> <td>Tensile: 254,000/261,000</td> </tr> <tr> <td>Manganese: (Mn)</td> <td>1.600</td> <td>Hardness: N/A</td> </tr> <tr> <td>Molybdenum: (Mo)</td> <td>0.400</td> <td></td> </tr> <tr> <td>Nickel: (Ni)</td> <td>9.240</td> <td></td> </tr> <tr> <td>Nitrogen: (N)</td> <td>0.030</td> <td>Heat # 35791</td> </tr> <tr> <td>Phosphorus: (P)</td> <td>0.032</td> <td></td> </tr> <tr> <td>Silicon: (Si)</td> <td>0.430</td> <td></td> </tr> <tr> <td>Sulphur: (S)</td> <td>0.001</td> <td></td> </tr> </tbody> </table>		<u>Chemical</u>		<u>Physical</u>	Carbon: (C)	0.053	Size: 0.072	Chromium: (Cr)	18.210		Copper: (Cu)	0.410	Tensile: 254,000/261,000	Manganese: (Mn)	1.600	Hardness: N/A	Molybdenum: (Mo)	0.400		Nickel: (Ni)	9.240		Nitrogen: (N)	0.030	Heat # 35791	Phosphorus: (P)	0.032		Silicon: (Si)	0.430		Sulphur: (S)	0.001	
<u>Chemical</u>		<u>Physical</u>																																
Carbon: (C)	0.053	Size: 0.072																																
Chromium: (Cr)	18.210																																	
Copper: (Cu)	0.410	Tensile: 254,000/261,000																																
Manganese: (Mn)	1.600	Hardness: N/A																																
Molybdenum: (Mo)	0.400																																	
Nickel: (Ni)	9.240																																	
Nitrogen: (N)	0.030	Heat # 35791																																
Phosphorus: (P)	0.032																																	
Silicon: (Si)	0.430																																	
Sulphur: (S)	0.001																																	

Certified by: Heidi Burrowes

Victory Spring Ltd. certifies this to be a true & accurate copy of the original contained in the company records.